(19) World Intellectual Property Organization International Bureau



(43) International Publication Date 31 July 2003 (31.07.2003)

(21) International Application Number:

PCT

(10) International Publication Number WO 03/061507 A1

(51) International Patent Classification7: PCT/US03/01587

(22) International Filing Date: 16 January 2003 (16.01.2003)

(26) Publication Language:

English English

A61C 3/00

(30) Priority Data:

(25) Filing Language:

16 January 2002 (16.01.2002) US 60/350,232 US 60/350,233 16 January 2002 (16.01.2002) 22 April 2002 (22.04.2002) US 10/131,454 US 1 July 2002 (01.07.2002) 10/187,494 15 July 2002 (15.07.2002) US 60/396,338

(71) Applicant and

- (72) Inventor: MCGANN, Benson [US/US]; 31301 Auguacate Road, San Juan Capistrano, CA 92675 (US).
- ZOETEWEY, David et al.; RUTAN & TUCKER, LLP, 611 Anton Blvd., 14th Floor, Costa Mesa, CA 92626 (US).

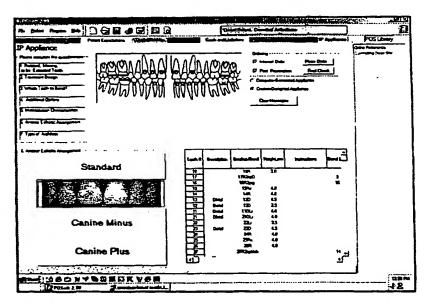
- (81) Designated States (national): AE, AG, AL, AM, AT (utility model), AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ (utility model), CZ, DE (utility model), DE, DK (utility model), DK, DM, DZ, EC, EE (utility model), EE, ES, FI (utility model), FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK (utility model), SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

Published:

- with international search report
- before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments

[Continued on next page]

(54) Title: ORTHODONTIC APPLIANCES, SYSTEMS, METHODS AND TOOLS



(57) Abstract: Improved orthodontic methods and apparatus are described that reduce the level of skill required for successful treatment, reduce the amount of orthodontist's time required for successful treatment, and have improved retention. Customized individual orthodontic treatment is possible utilizing brackets (92420), bands, and archwires (1200) specifically designed for each malocclusion. Computer software is used to organize hundreds of issues and appliance variations in an automated or semi-automated diagnosis and treatment system. Related tools include a bracket holder (500) having a handle (550), a pair of gripping members (520, 520') and a gripping member position and orientation indicator (600) and a bracket vertical position indicator (700).

03/061507 A1